

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

WEBBER, David, Brian  
Davies Collison Cave  
1 Little Collins Street  
Melbourne, VIC 3000  
AUSTRALIE

TUESDAY, 23 MAR 1999

|  |  |  |
|--|--|--|
| Date of mailing (day/month/year)<br>11 March 1999 (11.03.99) |  |  |
| Applicant's or agent's file reference<br>2092193/DBW         |  |  |
| IMPORTANT NOTICE   |  |  |
| International application No.<br>PCT/AU98/00710              | International filing date (day/month/year)<br>02 September 1998 (02.09.98) | Priority date (day/month/year)<br>02 September 1997 (02.09.97) |
| Applicant<br>NEC AUSTRALIA PTY. LTD. et al                   |  |  |

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AU,BR,CN,EP,IL,JP,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AL,AM,AP,AT,AZ,BA,BB,BG,BY,CA,CH,CU,CZ,DE,DK,EA,EE,ES,FI,GB,GE,GH,GM,HR,HU,ID,IS,  
KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MN,MW,MX,NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,  
SK,SL,TJ,TM,TR,TT,UA,UG,UZ,VN,YU,ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on  
11 March 1999 (11.03.99) under No. WO 99/12353

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

|   |                                    |
|---|------------------------------------|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br><br>J. Zahra |
| Facsimile No. (41-22) 740.14.35   | Telephone No. (41-22) 338.83.38    |

### Information on patent family members

International application No.

**PCT/AU 98/00710**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report |          |    |          | Patent Family Member |          |    |         |
|--|----------|----|----------|----------------------|----------|----|---------|
| US                                     | 5410343  | AU | 24894/92 | EP                   | 605454   | NZ | 244083  |
|  |          | US | 5247347  | WO                   | 9306692  | US | 5528281 |
|  |          | US | 5625404  | US                   | 5712906  | US | 5790174 |
|  |          | US | 5802283  | AU                   | 66999/94 | WO | 9423537 |
| WO                                     | 93/06692 | AU | 24894/92 | EP                   | 605454   | NZ | 244083  |
|  |          | US | 5247347  | US                   | 5410343  | US | 5528281 |
|  |          | US | 5625404  | US                   | 5712906  | US | 5790174 |
|  |          | US | 5802283  | AU                   | 66999/94 | WO | 9423537 |
| EP                                     | 425145   | JP | 3265257  | US                   | 5042062  |    |         |
| EP                                     | 589620   | CA | 2106745  | JP                   | 6205105  | JP | 6205105 |
|  |          | US | 5329572  |                      |          |    |         |
| US                                     | 5625404  | AU | 24894/92 | EP                   | 605454   | NZ | 244083  |
|  |          | US | 5247347  | WO                   | 9306692  | US | 5410343 |
|  |          | US | 5528281  | US                   | 5712906  | US | 5790174 |
|  |          | US | 5802283  | AU                   | 66999/94 | WO | 9423537 |
| US                                     | 5528281  | AU | 24894/92 | EP                   | 605454   | NZ | 244083  |
|  |          | US | 5247347  | WO                   | 9306692  | US | 5410343 |
|  |          | US | 5625404  | US                   | 5712906  | US | 5790174 |
|  |          | US | 5802283  | AU                   | 66999/94 | WO | 9423537 |
| END OF ANNEX                           |          |    |          |                      |          |    |         |

| Patent Document Cited in Search Report |          |    |          | Patent Family Member |         |    |         |
|--|----------|----|----------|----------------------|---------|----|---------|
| WO                                     | 96/21986 | AU | 39534/95 | CA                   | 2208987 | GB | 2296620 |
|  |          | GB | 2308526  | US                   | 5751338 |    |         |
| EP                                     | 513763   | CA | 2068387  | EP                   | 715470  | JP | 4336830 |

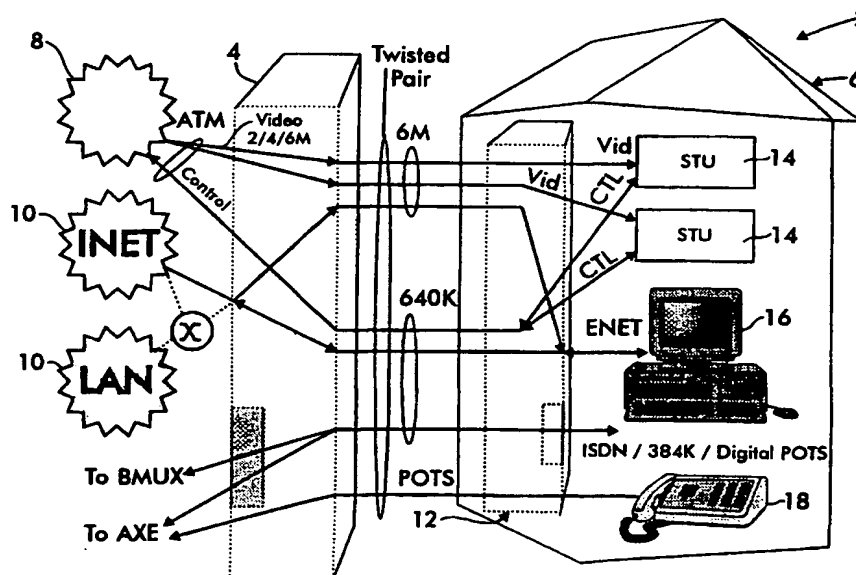


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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|   |  |  |  |
|---|--|--|--|
| (51) International Patent Classification <sup>6</sup> :<br><b>H04N 7/173, H04M 11/00</b>  |  | <b>A1</b>  | (11) International Publication Number:<br><b>WO 99/12353</b>     |
|   |  |  | (43) International Publication Date:<br>11 March 1999 (11.03.99) |
| (21) International Application Number:<br><b>PCT/AU98/00710</b>   |  | (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). |  |
| (22) International Filing Date:<br>2 September 1998 (02.09.98)  |  |  |  |
| (30) Priority Data:<br>PO 8942                      2 September 1997 (02.09.97)      AU   |  |  |  |
| (71) Applicant (for all designated States except US): NEC AUSTRALIA PTY. LTD. [AU/AU]; 635 Ferntree Gully Road, Glen Waverley, VIC 3150 (AU).   |  |  |  |
| (72) Inventors; and<br>(75) Inventors/Applicants (for US only): SIM, Puay, Kia [SG/AU]; 38 Wondalea Crescent, Wantima, VIC 3152 (AU); DEL PAPA, John, Domenick [AU/AU]; 31 Heritage Way, Lysterfield, VIC 3156 (AU); STUMPF, Erich [AU/AU]; 4 Dobell Drive, Eltham North, VIC 3095 (AU); FIDDES, Leigh, Francis [AU/AU]; 25 Buena Vista Drive, Montmorency, VIC 3094 (AU); BURR, Peter, Andrew [AU/AU]; 66 Landau Drive, Warranwood, VIC 3134 (AU); GONTMAKHER, Alexander [AU/AU]; 4 Simpson Drive, Mount Evelyn, VIC 3149 (AU); DIAS, Dominic, John [GB/AU]; 45 MacKellar Avenue, Mulgrave, VIC 3170 (AU). |  |  |  |
| (74) Agents: WEBBER, David, Brian et al.; Davies Collison Cave, 1 Little Collins Street, Melbourne, VIC 3000 (AU).  |  | Published<br>With international search report.   |  |

(54) Title: A DISTRIBUTION SYSTEM



## (57) Abstract

A distribution switch for a local exchange, including an access unit for switching video channels transmitted to subscribers in response to channel requests received from subscribers, and a control unit for controlling switching of the channels by the access unit in accordance with stored conditional access data. The conditional access data includes contact description data for the video channels and entitlement data for the subscribers, which is compared by the control unit for the channel requests. The switch may include a DVB interface unit for receiving DVB signals, extracting the video channels from the DVB signals, and multiplexing the video channels onto a data path for the access unit. The DVB interface unit can extract the conditional access data from the DVB signals.

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Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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|----|--------------------------|----|--|----|--|----|--------------------------|
| AL | Albania                  | ES | Spain                                    | LS | Lesotho                                      | SI | Slovenia                 |
| AM | Armenia                  | FI | Finland                                  | LT | Lithuania                                    | SK | Slovakia                 |
| AT | Austria                  | FR | France                                   | LU | Luxembourg                                   | SN | Senegal                  |
| AU | Australia                | GA | Gabon                                    | LV | Latvia                                       | SZ | Swaziland                |
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| BA | Bosnia and Herzegovina   | GE | Georgia                                  | MD | Republic of Moldova                          | TG | Togo                     |
| BB | Barbados                 | GH | Ghana                                    | MG | Madagascar                                   | TJ | Tajikistan               |
| BE | Belgium                  | GN | Guinea                                   | MK | The former Yugoslav<br>Republic of Macedonia | TM | Turkmenistan             |
| BF | Burkina Faso             | GR | Greece                                   |    |  | TR | Turkey                   |
| BG | Bulgaria                 | HU | Hungary                                  | ML | Mali   | TT | Trinidad and Tobago      |
| BJ | Benin                    | IE | Ireland                                  | MN | Mongolia                                     | UA | Ukraine                  |
| BR | Brazil                   | IL | Israel                                   | MR | Mauritania                                   | UG | Uganda                   |
| BY | Belarus                  | IS | Iceland                                  | MW | Malawi                                       | US | United States of America |
| CA | Canada                   | IT | Italy                                    | MX | Mexico                                       | UZ | Uzbekistan               |
| CF | Central African Republic | JP | Japan                                    | NE | Niger  | VN | Viet Nam                 |
| CG | Congo                    | KE | Kenya                                    | NL | Netherlands                                  | YU | Yugoslavia               |
| CH | Switzerland              | KG | Kyrgyzstan                               | NO | Norway                                       | ZW | Zimbabwe                 |
| CI | Côte d'Ivoire            | KP | Democratic People's<br>Republic of Korea | NZ | New Zealand                                  |    |                          |
| CM | Cameroon                 |    |  | PL | Poland                                       |    |                          |
| CN | China                    | KR | Republic of Korea                        | PT | Portugal                                     |    |                          |
| CU | Cuba                     | KZ | Kazakstan                                | RO | Romania                                      |    |                          |
| CZ | Czech Republic           | LC | Saint Lucia                              | RU | Russian Federation                           |    |                          |
| DE | Germany                  | LI | Liechtenstein                            | SD | Sudan  |    |                          |
| DK | Denmark                  | LK | Sri Lanka                                | SE | Sweden                                       |    |                          |
| EE | Estonia                  | LR | Liberia                                  | SG | Singapore                                    |    |                          |

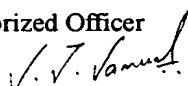
REC'D 13 JUL 1999

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|   |   |  |
|---|---|--|
| Applicant's or agent's file reference<br>2092193/DBW/VT   | <b>FOR FURTHER ACTION</b>   | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416). |
| International application No.<br><br><b>PCT/AU 98/00710</b>   | International filing date<br>(day/month/year)<br><br>2 September 1998 | Priority Date (day/month/year)<br><br>2 September 1997   |
| International Patent Classification (IPC) or national classification and IPC<br><br><b>Int. Cl.<sup>6</sup> H04N 7/173 ; H04M 11/00</b> |   |  |
| Applicant<br><br>NEC AUSTRALIA PTY Ltd. (et al)   |   |  |

|    |   |
|----|---|
| 1. | This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.  |
| 2. | This REPORT consists of a total of 3 sheets, including this cover sheet.<br><br><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).<br><br>These annexes consist of a total of sheet(s).   |
| 3. | This report contains indications relating to the following items:<br><br>I <input checked="" type="checkbox"/> Basis of the report<br>II <input type="checkbox"/> Priority<br>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability<br>IV <input type="checkbox"/> Lack of unity of invention<br>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement<br>VI <input type="checkbox"/> Certain documents cited<br>VII <input type="checkbox"/> Certain defects in the international application<br>VIII <input type="checkbox"/> Certain observations on the international application |

|  |   |
|--|---|
| Date of submission of the demand<br>1 April 1999   | Date of completion of the report<br>06 July 1999  |
| Name and mailing address of the IPEA/AU<br>AUSTRALIAN PATENT OFFICE<br>PO BOX 200<br>WODEN ACT 2606<br>AUSTRALIA<br>Facsimile No. (02) 6285 3929 | Authorized Officer<br><br><b>SERINEL SAMUEL</b><br>Telephone No. (02) 6283 2382 |

**I. Basis of the report**1. With regard to the **elements** of the international application:\*

- ☒ the international application as originally filed.
- ☐ the description,        pages , as originally filed,  
                                 pages , filed with the demand,  
                                 pages , filed with the letter of .
- ☐ the claims,        pages , as originally filed,  
                                 pages , as amended (together with any statement) under Article 19,  
                                 pages , filed with the demand,  
                                 pages , filed with the letter of .
- ☐ the drawings,        pages , as originally filed,  
                                 pages , filed with the demand,  
                                 pages , filed with the letter of .
- ☐ the sequence listing part of the description:  
                                 pages , as originally filed  
                                 pages , filed with the demand  
                                 pages , filed with the letter of

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, was on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description,        pages
- ☐ the claims,        Nos.
- ☐ the drawings,        sheets/fig

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

|                               |                    |     |
|-------------------------------|--------------------|-----|
| Novelty (N)                   | Claims 2-18, 20-28 | YES |
|                               | Claims 1,19        | NO  |
| Inventive step (IS)           | Claims nil         | YES |
|                               | Claims 1-28        | NO  |
| Industrial applicability (IA) | Claims 1-28        | YES |
|                               | Claims nil         | NO  |

**2. Citations and explanations (Rule 70.7)****NOVELTY (N) Claims 1,19**

-US 5,410,343  
-WO 93/06692  
-US 5,625,404  
-US 5,528,281  
-EP 0,425,145  
-EP 0,589,620  
-WO 95/34169

Each of these citations explicitly discloses all of the features of these claims.

**INVENTIVE STEP (IS) Claims 1-28**

Claims 1,19 as above

**Claims 2-18, 20-28**

These claims add features which would either be obvious to a person skilled in the art or merely amount to adding common general knowledge.



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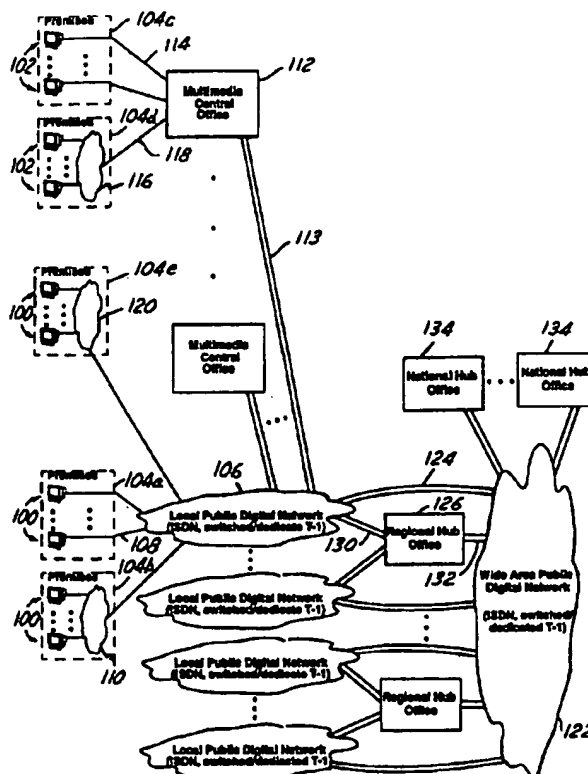
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|   |  |  |  |
|---|--|--|--|
| (51) International Patent Classification <sup>6</sup> :<br><b>H04L 12/64, H04N 7/10</b>   |  | A3   | (11) International Publication Number: <b>WO 96/21986</b>    |
|   |  |  | (43) International Publication Date: 18 July 1996 (18.07.96) |
| (21) International Application Number: PCT/US95/13016   |  | (81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, MW, SD, SZ, UG), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). |  |
| (22) International Filing Date: 4 October 1995 (04.10.95)   |  |  |  |
| (30) Priority Data:<br>367,976 30 December 1994 (30.12.94) US   |  |  |  |
| (60) Parent Application or Grant<br>(63) Related by Continuation<br>US 367,976 (CON)<br>Filed on 30 December 1994 (30.12.94)  |  | Published<br><i>With international search report.<br/>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>   |  |
| (71) Applicant (for all designated States except US): VISIONARY CORPORATE TECHNOLOGIES, INC. [US/US]; Unit 2B, 264 Village Boulevard, Incline Village, NV 89452 (US). |  | (88) Date of publication of the international search report: 24 October 1996 (24.10.96)  |  |
| (72) Inventor; and<br>(75) Inventor/Applicant (for US only): LUDWIG, Lester, Frank, Jr. [US/US]; 548 Trinidad Lane, Foster City, CA 94404 (US).                       |  |  |  |
| (74) Agents: ARTZ, John, A. et al.; Brooks & Kushman, 22nd floor, 1000 Town Center, Southfield, MI 48075 (US).  |  |  |  |

(54) Title: MULTIMEDIA COMMUNICATIONS VIA PUBLIC TELEPHONE NETWORKS

(57) Abstract

Methods and systems are disclosed for providing multimedia telecommunication services to multimedia workstations (100, 102). The multimedia workstations (100, 102) communicate with a multimedia central office (112) which includes a digital switch complex (150) coupled to a public digital telephone network (106), and at least one twisted pair transceiver (152) coupled to at least one twisted pair link in a telephone loop plant. The multimedia central office (112) further includes at least one switch complex (154) operatively associated with the digital switch complex and the at least one twisted pair transceiver. The multimedia central office is capable of transceiving signals with multimedia workstations interfaced to the public digital telephone network, and with multimedia workstations interfaced to the at least one twisted pair link in the telephone loop plant. The signals which are transceived include audio signals, video signals, and digital data signals used in providing the multimedia telecommunication services.



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| BE | Belgium                  | HU | Hungary                                  | NO | Norway                   |
| BF | Burkina Faso             | IE | Ireland                                  | NZ | New Zealand              |
| BG | Bulgaria                 | IT | Italy                                    | PL | Poland                   |
| BJ | Benin                    | JP | Japan                                    | PT | Portugal                 |
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| BY | Belarus                  | KG | Kyrgyzstan                               | RU | Russian Federation       |
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| CF | Central African Republic | KR | Republic of Korea                        | SE | Sweden                   |
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| CN | China                    | LT | Lithuania                                | SZ | Swaziland                |
| CS | Czechoslovakia           | LU | Luxembourg                               | TD | Chad                     |
| CZ | Czech Republic           | LV | Latvia                                   | TG | Togo                     |
| DE | Germany                  | MC | Monaco                                   | TJ | Tajikistan               |
| DK | Denmark                  | MD | Republic of Moldova                      | TT | Trinidad and Tobago      |
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| FI | Finland                  | MN | Mongolia                                 | US | United States of America |
| FR | France                   | MR | Mauritania                               | UZ | Uzbekistan               |
| GA | Gabon                    |    |  | VN | Viet Nam                 |

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 95/13016

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 H04L12/64 H04N7/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 H04L H04M H04Q H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| P,A        | GB,A,2 282 506 (VICOR INC) 5 April 1995<br>see page 3, line 21 - page 5, line 10<br>---   | 1-4,<br>22-25         |
| A          | TRANSACTIONS OF THE INSTITUTE OF<br>ELECTRONICS, INFORMATION AND COMMUNICATION<br>ENGINEERS OF JAPAN,<br>vol. E74, no. 9, September 1991, TOKYO<br>JP,<br>pages 2696-2702, XP000271990<br>HIROSHI SHIMIZU ET AL: "IVDLAN<br>STANDARDIZATION AND DEVELOPMENT"<br>---<br>-/-- | 1,22                  |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "A" document member of the same patent family

Date of the actual completion of the international search

30 August 1996

Date of mailing of the international search report

11.09.96

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,  
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Authorized officer

Vandevenne, M

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 95/13016

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |  |                       |
|--|--|-----------------------|
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
| A  | PROC. OF THE 1ST INTERNATIONAL WORKSHOP ON<br>COMMUNITY NETWORKING- INTEGRATED<br>MULTIMEDIA SERVICES TO THE HOME-<br>13 - 14 July 1994, SAN FRANCISCO(US),<br>pages 203-209, XP000566578<br>S.V.AHAMED ET AL: "HDSL AND ADSL CAPACITY<br>OF THE OUTSIDE LOOP PLANT FOR MULTIMEDIA<br>SERVICES TO THE HOME"<br>--- | 1,22                  |
| A  | PATENT ABSTRACTS OF JAPAN<br>vol. 18, no. 47 (E-1496), 25 January 1994<br>& JP,A,05 268585 (MATSUSHITA), 15 October<br>1993,<br>see abstract<br>---  | 43,44                 |
| A  | EP,A,0 352 210 (ETAT FRANCAIS) 24 January<br>1990<br>see column 5, line 19 - line 30<br>see column 6, line 19 - line 24<br>see column 8, line 29 - line 45<br>---  | 43,44                 |
| A  | EP,A,0 617 560 (A.T.T.) 28 September 1994<br>see abstract<br>---   | 43,44                 |
| A  | EP,A,0 244 260 (SHARP) 4 November 1987<br>see abstract<br>-----  | 43,44                 |

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US95/13016

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-42: System for providing a plurality of multimedia telecommunication services and method therefor.
2. Claims 43-44: System (and method) for communicating an analog video signal and an audio signal over twisted pair links.
1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 95/13016

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| GB-A-2282506                              | 05-04-95            | AU-B- 7198894              | 01-05-95            |
|   |                     | AU-B- 7963894              | 01-05-95            |
|   |                     | EP-A- 0721725              | 17-07-96            |
|   |                     | EP-A- 0721726              | 17-07-96            |
|   |                     | WO-A- 9510157              | 13-04-95            |
|   |                     | WO-A- 9510158              | 13-04-95            |
| EP-A-352210                               | 24-01-90            | FR-A- 2634608              | 26-01-90            |
|   |                     | DE-D- 68918368             | 27-10-94            |
|   |                     | DE-T- 68918368             | 11-05-95            |
|   |                     | US-A- 5130793              | 14-10-92            |
| EP-A-617560                               | 28-09-94            | US-A- 5389900              | 14-02-95            |
|   |                     | AU-B- 5927494              | 29-09-94            |
| EP-A-244260                               | 04-11-87            | JP-A- 62257287             | 09-11-87            |
|   |                     | JP-A- 62257293             | 09-11-87            |
|   |                     | DE-A- 3786946              | 16-09-93            |
|   |                     | DE-T- 3786946              | 27-01-94            |
|   |                     | US-A- 4955048              | 04-09-90            |

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU 98/00710

**A. CLASSIFICATION OF SUBJECT MATTER**Int Cl<sup>6</sup>: H04N 7/173; H04M 11/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC H04N; H04M; H04Q 11/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
AU: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT: DISTRIBUT: OR SWITCH: AND VIDEO

JAPIO: DISTRIBUT: OR SWITCH: AND VIDEO

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                  | Relevant to claim No. |
|-----------|---|-----------------------|
| X         | US 5410343 A (CODDINGTON et al) 25 April 1995<br>See column 3, line 45 - column 4, line 23          | 1, 19                 |
| X         | EP 0431816 A1 (CABLETIME LIMITED) 12 June 1991<br>See column 1, lines 29-40                         | 1, 19                 |
| X         | WO 93/06692 (BELL ATLANTIC NETWORK SERVICES) 1 April 1993<br>See page 8, line 10 - page 13, line 12 | 1, 19                 |

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
29 September 1998

Date of mailing of the international search report

14 OCT 1998

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